

TITLE 11
DEPARTMENT OF HEALTH -
CHAPTER 61
MANDATORY CERTIFICATION OF OPERATING PERSONNEL IN WASTEWATER
TREATMENT FACILITIES
BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN WASTEWATER
TREATMENT FACILITIES

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Historical Note: Chapter 61 of Title 11, Administrative Rules, is based substantially on the Regulations for Mandatory Certification of Operating Personnel in Wastewater Treatment Facilities, Board of Certification of Operating Personnel in Wastewater Treatment Facilities, State of Hawaii. [Eff. 9/18/80; R NOV 05 1981]

§11-61-1 Purpose.

Efficient management of wastewater treatment works is an important economic asset to the public, to county and state officials and to operators. Also, effective operation and maintenance of wastewater treatment works is essential to prevent pollution of the waters of the state. Furthermore, certification of wastewater treatment works operators assures the employment of personnel competent to provide efficient management, and proper maintenance and operation of wastewater treatment works. Therefore, the purpose of these regulations is to promote protection of public health, and to conserve and protect the water and public resources of the state. To achieve these purposes, it is the objective of these regulations to ensure that all wastewater treatment plants are under the active field supervision of competent operators in accordance with the provisions contained in these regulations. [Eff. NOV 05 1981] (Auth: HRS §§340B-7, 340B-11) (Imp: HRS §§340B-7, 340B-11)

§11-61-2 Definitions.

As used in this chapter:

"Association of boards of certification (ABC) for operating personnel in water and wastewater utilities" is that organization which serves as an information center for certification activities, recommends minimum standards and guidelines for the classification of potable water supply and wastewater systems and facilities and for certification of operators, facilitates reciprocity between state programs, and assists authorities in establishing new certification programs and upgrade existing programs.

"Board" means the board of certification established by §340B-4, HRS. "Direct responsible charge (DRC)" means active, on-site charge of:

- (1) A wastewater treatment plant; or
- (2) A segment of wastewater treatment plant; or
- (3) An operating shift in 1 and 2.

"Director" means the director of health.

"Operating experience" means time spent at a plant or system in satisfactory performance of operation duties.

"Operator" means any individual who operates a wastewater treatment plant, or a major segment of a wastewater treatment plant.

"Person" means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate commission, board, public or private institution, utility, cooperative, municipality, or any other legal entity.

"Wastewater treatment plant" means the various facilities used in the treatment of wastewater, including a wastewater reclamation plant, but excluding a private sewage treatment plant with actual flows greater than 2.0 million gallons per day, with a valid discharge permit issued pursuant to §342-6, HRS, and without a record of adjudged violations of any permit conditions at anytime for the life of the permit. [Eff. NOV. 5 1981] (Auth: HRS §§ 340B-7, 340B-11) (Imp: HRS §340B-11) .

§11-61-3 Certification.

(a) All wastewater treatment plants and segments of wastewater treatment plants which have been classified in accordance with §11-61-6, whether publicly or privately owned, used or intended for use by the public or private persons, shall at all times be under the direct responsible charge Of an operator or operators whose competency has been certified by the director in a classification corresponding to the classification of the wastewater treatment plant or segments of the wastewater treatment plant to be supervised.

(b) Conversion from voluntary to mandatory certification.

(1) Certificates issued under the Hawaii Water Pollution Control Association's voluntary certification program are valid. However, the director shall issue a certificate to each applicant who holds a current certificate issued on or prior to June 2, 1978 pursuant to the voluntary program.

(2) Holders of such certificates issued under the voluntary program shall apply to the board for

certificates in the appropriate grade within sixty days of the date of notification by the board. The applicant shall furnish proof, satisfactory to the board, that he holds a voluntary certificate. Examples of proof which may be satisfactory to the board follow:

- (A) A copy of the applicant's voluntary certificate or a copy of the letter which transmitted the certificate or a certified copy thereof; or
- (B) Records of the Hawaii Water Pollution Control Association may be used when these are available; or
- (C) Other proof satisfactory to the board.

(3) If the applicant is eligible, the board shall notify the applicant and approve the issuance of a certificate designating his level of competency equivalent to the certification under the voluntary program upon receipt of the certificate fee.

(c) Reciprocity certification.

(1) certificates may be issued, without examination, for a comparable classification to any person who holds a certificate in another state, provided the requirements of that state are substantially equivalent to the requirements of this chapter, and provided reciprocal privileges are being granted by that state to certified operators of this state. However, in no case shall a certificate be issued unless the applicant received his certification by taking a written examination in another state. The board shall approve the issuance of reciprocal certificates only to applicants employed or seeking employment in the State of Hawaii.

(2) The applicant filing for an application for a certificate under §11-61-3(c) (1) shall submit the following documents to the board along with the application:

- (A) A copy of his current certificate or other proof, satisfactory to the board, that he holds a certificate issued by an agency of another state, territory or possession of the United States; and
- (B) A letter verifying his employment or application for employment.

(3) If, after receiving such an application, the board is satisfied that the applicant qualifies for a certificate, it shall notify the applicant and approve the issuance of a certificate upon receipt of the certificate fee.

(d) Conditional certification.

(1) The board may approve the issuance of a conditional certificate without examination as provided below:

- (A) A request for a conditional certificate must be made by the operator in responsible charge together with the application fee within thirty days of the date of notification of the plant classification.
- (B) The operator must have held this position and operated the plant satisfactorily on or before June 2, 1978.

(2) A conditional certificate is valid for use by the holder only in the wastewater treatment plant for which he had responsible charge at the time of certification as long as the plant is not upgraded to a higher classification or at another plant similar in size and process as determined by the board. If the treatment facility is upgraded to a higher classification, the conditional certificate shall automatically be invalidated.

(3) If, after receiving such an application, the board is satisfied that the applicant qualifies for a certificate, it shall notify the applicant and approve the issuance of a certificate upon receipt of the certification fee.

(e) Temporary certification for operator in training.

(1) Temporary certificates for operator in training without examination may be issued as the board may deem necessary.

(2) A temporary certificate may be issued to a certified operator in a lower grade, or an operator who is not certified but is accumulating experience under the direction of a certified operator in order to qualify for certification by examination.

(3) The applicant for a temporary certificate must be able to meet the minimum educational and experience requirements to take the examination at the next higher grade prior to the expiration date of the temporary certificate.

(4) Application for a temporary certificate must include:

(A) The application fee;

(B) A statement signed by the owner, which shall designate the applicant as the operator in direct responsible charge and shall specify plans for the applicant to acquire certification by examination; and

(C) A statement from the directing certified operator identifying his certification number and detailing the extent of his direction and training of the applicant.

(5) Temporary certificates for each grade shall not be valid for more than 24 months.

(6) If eligible for temporary certification, the Board shall notify the applicant and the owner. [Eff. 11/5/81; am OCT 06 1983] Auth: HRS §§340B-7, 340B-11) (Imp: HRS §§340B-3, 340B-6, 340B-7, 340B-8, 340B-11, 340B-13)

§11-61-4 Education and experience requirements for certification.

(a) In order to take the grade I examination, the applicant shall submit an application showing that he has a high school education, or equivalent satisfactory to the board, and has one year of full-time employment in actual operation of a wastewater treatment plant.

(b) In order to take the grade II examination, the applicant shall submit an application showing that the following combination of training and experience has been met:

(1) High school education, or equivalent satisfactory to the board, and two years of full-time experience in actual operation and maintenance of a wastewater treatment plant and six educational points, or

(2) One and one-half years of full-time experience while in possession of a grade I certificate.

(c) In order to take the grade III examination, the applicant shall submit an application showing that the following combination of training and experience has been met:

- (1) An associate degree including fifteen units of basic science from a community college, or two years at a college or university including fifteen units of basic science, and two years of full-time experience in the operation and maintenance of a wastewater treatment plant or a major part thereof; or
- (2) High school education, or equivalent satisfactory to the board, and three years of full-time experience in the operation of a wastewater treatment plant and a minimum of sixteen educational points; or
- (3) Two and one-half years full-time experience while in the possession of a grade II certificate.

(d) In order to take the grade IV examination, the applicant shall submit an application showing that the following combination of training and experience has been met:

- (1) A bachelor's degree with a major related to the wastewater treatment field and one year full-time experience in the operation and maintenance of a wastewater treatment or a major part thereof; or
- (2) An associate degree including fifteen units of basic science from a community college, or two years at a college or university including fifteen units of basic science, and four years of full-time experience in the operation and maintenance of a wastewater treatment plant or a major part thereof; or ..
- (3) Graduation from high school, or equivalent satisfactory to the board, and five years full-time in the operation and maintenance of a wastewater treatment plant, or part thereof, and a minimum of thirty-two educational points; or ' .
- (4) Four years full-time experience while in the possession of a grade III certificate.

(e) Experience equivalence.

- (1) Except for the requirements for a grade I wastewater treatment operator, educational points may be substituted for one year experience. Educational points used qualifying for a grade may not be used to reduce the time required in that grade to qualify for the next higher grade.
- (2) Experience shall not be substituted for educational points.
- (3) Credit for education shall be allowed as follows:
 - (A) Sixteen educational points may be substituted for one year experience. Educational points substituted for experience shall not be resubstituted for experience for subsequent examinations for a higher grade. One three-unit semester accredited college course related to wastewater treatment will be equivalent to eight points.
 - (C) Successful completion of training courses such as the environmental protection agency correspondence course will be equivalent to sixteen points.

(D) Other training courses equivalent to a three-unit semester accredited college course, and approved by the board, will be equivalent to eight points.

(E) Training courses in water quality control conducted by a community college adult evening school twenty-four weeks or a semester will be equivalent to eight points.

(F) Short courses shall be equivalent to one point per day attended with a maximum of three points.

(G) In-house training courses will be assigned points based upon length of course and course content.

(f) High school equivalency may be obtained by substituting six educational points for each uncompleted year of school through grade twelve or through passing an approved GED test.

(g) Educational point evaluation criteria.

(1) Courses directly related to wastewater treatment will receive full point value. Courses indirectly related to wastewater shall receive educational points at one-half value.

(2) College courses (including extension and correspondence courses taken for credit). Eight educational points are allowed for a three unit semester course which is directly related to wastewater treatment. For courses with more or less credit units or with credit given in quarter units, educational points shall be calculated to the nearest one-half point on a proportional basis.

(A) Directly related courses for all grades:

(i) courses in wastewater collection and treatment or water quality control. Any number allowed if not duplicated.

(ii) Sanitation microbiology. Maximum of three semester units.

(iii) Sanitary engineering course in the wastewater treatment field. Any number allowed if not duplicated.

(iv) Chemistry of wastewater. Maximum of three semester units.

(B) Indirectly related courses for all grades (half credit):

(i) Colleges chemistry up to twelve semester units.

(ii) Mathematics area: Algebra, geometry, trigonometry, statistics. Up to twelve semester units. Does not include basic, introductory, or business math courses.

(iii) Biological science area: Microbiology, pathogenic bacteriology, etc. Up to nine semester units.

(iv) General physics: Up to nine semester units.

(v) Engineering courses: Fluid mechanics, hydraulics, and sanitary engineering courses not directly related.

(C) Indirectly related courses. Grade III and IV only.

(i) Technical writing. Maximum of three semester units.

(ii) Public or business administration. Up to nine semester units in the area of organization, management, finance, supervision and budgeting, etc.

(iii) Public speaking. Up to three semester units.

(3) Directly related short courses are equivalent to one point per eight-hour with a maximum of three points per week. If the course is considered by the board to be indirectly related, one point shall be given for each two 'days with a maximum of two points per week.

(4) California State University, Sacramento correspondence course, "Operation of Wastewater Treatment Plants" - sixteen points.

(5) California State University, Sacramento correspondence course, "Operation and Maintenance of Wastewater Collection Systems" - eight points.

(6) Clemson University correspondence courses. First course is equivalent to eight points. All subsequent Courses earn six points.

(7) International Correspondence School "Sewage Plant Operator" (GBM) is equivalent to six points.

(8) In-house training of a formal nature shall be evaluated by the board on a case-by-case basis. As a general rule, one point shall be allowed for each twelve hours of instruction for a directly related subject and one point for each twenty-four hours of instruction in an indirectly related subject.

(9) One-day training seminars, safety conferences, or HWPCA sponsored conventions shall receive one point per day attended up to three points provided that an educational program is offered.

(10) Other extension courses or training of any type which might relate to the operator's duties shall be evaluated on a case-by-case basis. Points shall be allowed based on the material covered, the depth of the coverage, and the time required to complete the course.

(h) Any education or training course which are applied to meet the education requirements of this section shall not be acceptable to the board unless the applicant successfully completes the education or training course by receiving a passing grade as defined by the administering educational institution. [Eff. NOV 5 1981] (Auth: HRS §§ 340B-7, 340B-11 (Imp: HRS § 340B-7)

§11-61-5 Application, examination, issuance and revocation of certification.

(a) Application.

(1) An application form developed by the board for requesting certification as a wastewater treatment plant operator by examination, temporary certification, reciprocity certification,

conditional certification, or .conversion from voluntary certification, shall be properly and accurately completed and submitted with the application fee to: Chairman, Board of Certification of Operating Personnel in Wastewater Treatment Facilities, Department of Health, Environmental Protection and Health Services Division, P.O. Box 3378, Honolulu, HI 96801.

(2) Incomplete applications and applications not accompanied by required attachments cannot be processed until the required information is submitted to the board.

(3) The board shall disqualify an applicant for failure to meet the qualifications for certification. The board shall not finally deny certification to an applicant without affording the applicant an opportunity for a hearing in accordance with Chapter 91, HRS.

(4) The board shall notify each applicant, within forty-five days after receipt of a complete application by letter or by form prescribed by the board, of decision of the board.

(A) When an application is denied, the reasons for the denial, or

(B) When an application is accepted, to report for examination for certification.

(5) Failure of the board to act on a complete application for certification within forty-five days after receipt of such application shall be deemed an acceptance of such application.

(b) Examination.

(1) An application shall be filed with the board at least sixty days before the date upon which the examination is scheduled to be administered. The application fee must accompany the application.

(2) Upon receipt of the application by the board, the application shall be reviewed to determine whether or not the applicant is eligible to take the examination. The applicant shall be notified by letter of his eligibility.

(3) If the applicant is eligible to take the examination, he shall be advised of the date, time, and place of examination. The applicant shall then submit the examination fee upon being notified of his eligibility. Failure to submit the examination fee at least five days prior to the examination date shall disqualify the applicant for examination.

(4) Where the applicant is ineligible for examination, he shall also be notified by letter and advised of the reason of his ineligibility. Upon learning of his ineligibility, the applicant may request a hearing in accordance with Chapter 91, HRS.

(5) If applicants fail to meet a minimum grade of seventy in the examination, the board shall not approve them for certification. If applicants meet the minimum grade in the examination, the board shall approve them for certification. All applicants shall be notified in writing thirty days following review by the board as to whether they passed or failed the examination.

(6) After the examination has been completed and the decision for certifying applicants has been rendered by the board, all examination papers and records pertaining thereto shall be filed with the secretary and retained for at least three years.

(7) If an applicant fails to meet the minimum grade requirement in any examination, he shall be

permitted to be re-examined at subsequent examinations. Applicants desiring to be re-examined shall submit their application together with the application fee, as prescribed in §11-61-5(b).

(c) Issuance and renewal of certificates and identification cards.

(1) Upon satisfying the requirements for certification, the director shall issue a certificate and identification card to the applicant.

(2) All certificates except the temporary certificate must be renewed annually.

(A) The secretary shall forward appropriate renewal notice to each certified operator at least sixty days before the date of expiration of his certificate.

(B) Upon payment of the renewal fee by the certified operator, the board shall issue a new identification card.

(C) If a certificate is allowed to lapse because of nonpayment of renewal fee, it may be reinstated by payment of the current annual fee. Reexamination shall be required if a certificate is allowed to lapse for more than one year.

(d) Revocation of certificate.

(1) The board may revoke the certificate of an operator when it is found that the operator has practiced fraud or deceit in obtaining certification or in performing his duties; that reasonable care, judgment, or the application of his knowledge or ability was not used in the performance of his duties; or that the operator is incompetent or unable to properly perform his duties.

(2) Notice of proposed revocation shall be given the operator by registered mail to the latest known address at least twenty days before taking action. The notice shall contain the alleged facts or conduct upon which the proposed revocation is based and shall inform the operator of the opportunity for a hearing in accordance with Chapter 91, HRS.

(e) A registry of wastewater treatment plants and certified operators shall be updated on an annual basis and made available.

(f) Schedule of fees.

(1) Application - Five dollars. This fee shall accompany the application requesting temporary certification, reciprocity certification, conditional certification, conversion from voluntary certification, or examination for certification.

(2) Examination - Twenty dollars. This fee shall be submitted after the applicant receives word that he is eligible to take the examination. This fee includes the certificate fee, provided that the certificate is earned.

(3) Reciprocity certificate - Thirty dollars. This fee shall be submitted after the applicant receives word that he is eligible for reciprocity certification.

(4) Conversion from voluntary to mandatory certification - Ten dollars. This fee shall be submitted after the applicant receives word that he is eligible for voluntary conversion certification.

(5) Conditional certificate - Twenty-five dollars. This fee shall be submitted after the applicant receives word that he is eligible for conditional certification: i6) Temporary certificate - Fifty dollars. This fee shall be submitted after the applicant receives word that he is eligible for temporary certification.

(7) Annual fee - Ten dollars. Annual fees shall not be required for certified operators who earn their certificates within six months of the date that the annual fee is due. Annual fee shall be due on October 15 of each year.

(8) Replacement of certificate - Ten dollars. This fee shall be submitted when requesting replacement of certificate due to loss, damage, or misplacement.

(9) Replacement of identification card - Five dollars. This fee shall be submitted when requesting replacement of identification card due to loss, damage, or replacement. [Eff NOV 05 1981] (Auth: HRS §§340B-7, 340B-11) (Imp: HRS §§340B-7, 340B-11)

§11-61-6 Classification of wastewater treatment plants.

(a) Rating wastewater treatment plants.

(1) The board shall rate and classify all waste-' water treatment plants. In making classifications, the board shall consider among other factors, the size and type of plants, characteristics of wastewater to be treated, and other physical conditions affecting such wastewater treatment plants, and the skill, knowledge and experience required of an operator.

(2) Individual wastewater systems, as defined in Chapter 57, Title 11, Administrative Rules, "Private Wastewater Treatment Works and Individual Wastewater Systems," such as cesspool and septic tank facilities connected to an individual household, shall be exempt from classification. Industrial plants for treatment of process water from oil refineries and sugar mills shall be exempt from classification, provided such waste streams contain no domestic component and further provided that they do not discharge to a municipal collection, treatment, or disposal system. Application for exemption from classification of other industrial wastewater treatment plants may be made to the director.

(3) In classifying or exempting from classification wastewater treatment plants, the board shall consider applicable provisions of ' Chapter 57, Title 11, Administrative Rules regarding wastewater treatment plants and rules and regulations of the department of health pertaining to the control of underground injection of wastewater.

(4) The board shall be notified within thirty days of any significant change in treatment process, waste characteristics and waste flow.

(b) The criteria to be used for the rating of wastewater treatment plants are contained in Table I, date September 18, 1980, criteria for classification of wastewater treatment plants, located at the end of this section. The board will classify segments of wastewater treatment plants as deemed necessary where the rating criteria of Table I is not applicable.

TABLE I

CRITERIA FOR CLASSIFICATION OF WASTEWATER

TREATMENT PLANTS

SEPTEMBER 18, 1980

PLANT CLASS	I.	II.	III.	IV.
RANGE OF POINTS	30 or Less	31-55	56-75	76 or Greater

Assign points for every item that applies:

Item		
Size		
Maximum population equivalent (P.E.) served, peak day	1 pt. per 10,000 P.E. or part	Max. 10 Points
Design flow (avg. day) or peak month's flow (avg. day), whichever is larger	1 pt. per - MGD or part	Max. 10 Points
Effluent Discharge		
Receiving stream (sensitivity)	2-6	
"Effluent limited segment" in Environmental Protection Agency (EPA) terminology; secondary treatment is adequate	1	
More than secondary treatment is required	2	

"Water quality limited segment"

EPA terminology; stream condi-

tions are very critical (dry

reach, for example) and a

very high degree of treatment

is required 3

Effluent used in a direct recycle and reuse system..., 6

Land disposal 2

Subsurface disposal 5

Variation in Raw Wastes

(slight to extreme) . 0-6

Variations do not exceed those

normally or typically expected 0

Recurring deviations or excessive

variations of 100 to 200 percent in

strength and/or flow 2

Recurring deviations or excessive

variations of more than 200 percent in

strength and/ or flow 4

Raw wastes subject to toxic

waste discharges 6

Pretreatment

Screening, comminution 3

Grit removal 3

Plant pumping of main flow 3

Standby power supply 2

Primary Treatment

Primary clarifiers	5	
Combined sedimentation/digestion	5	
Chemical addition (except chlorine, enzymes)	...	4

Secondary Treatment

Trickling filter w/sec. clarifiers	10
Activated sludge w/sec. clarifiers (including ext. aeration and oxidation ditches)	15
Stabilization ponds without aeration	5
Aerated lagoon	8

Advanced Waste Treatment

Polishing pond	2	
Chemical/physical - without secondary	15	
Chemical/physical - following secondary	10	
Biological or chemical/ biological	12	
Ion exchange	..	10
Reverse osmosis, electrodialysis	15	
Chemical recovery, carbon regeneration	4	

Solids Handling

Thickening	5
Anaerobic digestion	10
Aerobic digestion	6
Evaporative sludge drying	2

Mechanical dewatering	8
Solids reduction (incineration, wet oxidation)	2
Disinfection	
Chlorination or comparable	5
On-site generation of disinfectant	5
Laboratory Control by Plant Personnel	
Bacteriological (complexity)	0-10
Lab work done outside the plant.	0
Membrane filter procedures	3
Use of fermentation tubes or any dilution methods, fecal coliform determination	
Biological identification	7
Virus studies or similarly complex work conducted on-site.	10
Chemical/physical (complexity).	0-10
Lab work done outside the plant	0
Pushbutton or visual methods for simple tests such as pH, settleable solids -- up to	3
Additional procedures such as DO, COD, BOD, gas analysis, titrations, solids volatile content - up to	5
More advanced determinations such as specific constituents: nutrients, total oils, phenols, etc. - up to	7

Highly sophisticated instrumentation such
as atomic absorption and gas chromatography

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[Eff NOV. 05 1981] (auth: HRS §§340B-2, 340B-7) (Imp: HRS §§340B-2, 340B-7)

§11-61-7 Procedures of the board.

(a) The headquarters of this board shall be located in the department of health in the office of the Environmental Protection and Health Services Division, P.O. Box 3378, Honolulu, Hawaii 96801. All documents, instruments and properties of the board, which are under the custody of the secretary, shall be kept in the headquarters or in the secretary's office.

(b) Five members of the board shall constitute a quorum to do business, and the concurrence of a majority of all the members of which the board is entitled shall be necessary to make any action of the board valid. [Eff. NOV. 5 1981] (Auth: HRS §§92-15, 340B-7) (Imp: HRS §§92-15, 340B-7)

§11-61-8 Penalties and remedies.

Any person who violates any provision of this chapter shall be subject to the penalties and remedies provided under §§340B-9, 340B-10 and 603-23, HRS. [Eff, NOV 05 1981] (Auth: HRS §§340B-7, 340B-11) (Imp: §§340B-7, 340B-9, 340B-10, 340B-11, 603-23)

§11-61-9 Severability.

If any provision of this chapter or the application to any person or circumstance is held invalid, the invalidity shall not affect other provisions or application of this chapter which can be given effect without regard to the invalid provision or application. [Eff NOV. 05 1981] (Auth: HRS §§340B-7, 340B-11) (Imp: HRS §§340B-7, 340B-11)